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EXAMINER

THAO, CHHEAN K

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/585,288	<b>Applicant(s)</b> WU ET AL.	
	<b>Examiner</b> CHHEAN THAO	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11 cancelled, 1-10 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11 cancelled, 1-10, 12-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/07/2009</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **Detailed Action**

1. Claims 1-10 and 12-17 are pending in the application. Claim 11 has been cancelled.

### **Response to Arguments**

Applicant's arguments filed March 13, 2009 have been fully considered but they are not persuasive.

Regarding claim 1 of the response filed, applicant argues that Bajko does not teach “returning to the S-CSCF a response message”. However, Bajko, paragraphs 17 & 18 and figure 2, discloses “the S-CSCF selection is done in the I-CSCF during registration” and “the I-CSCF is configured to decide whether newly registered identities are being addressed to a different S-CSCF”. Thus, “it is possible that the independent registrations of the same subscription are forwarded to different S-CSCFs based on the server capability information received by the I-CSCF from the home subscriber server (HSS)”. Therefore, the information is from HSS is forward to S-CSCF, as shown in figure 2 and figure 3. Furthermore, figure 2 also shows a direct connection between HSS and S-CSCF. Thus, Bajko does teach direction communication between HSS and S-CSCF. Applicant also argues that Bajko does not teach “a message comprising the user’s subscription information”. However, Bajko, paragraph 17, discloses user’s “subscription (information) are forwarded to different S-CSCFs”. Applicant also asserted that Bajko does not teach “upon receiving a request message from S-CSCF comprising a request for a storing name of the S-CSCF and for downloading a user’s subscription information, a HSS first storing the name of S-CSCF in the request message”. However, Bajko, paragraph 33, discloses the “HSS is configured to store information of identities of the user and of a call control entity (i.e., S-CSCF)”. Bajko, para 36, teach the information related to S-CSCF is “the name and/or

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address of the S-CSCF”. Bajko, para 35, discloses that the “HSS can be queried (i.e., requested, inquired) by the controller entities (i.e., S-CSCF)”. Thus, one of ordinary skill in the art would be able to conclude that S-CSCF can send a request message that contain S-CSCF name to the HSS, the HSS stores the name of S-CSCF, and response with user’s subscription information to the S-CSCF instructed by the S-CSCF. Bajko clearly teaches the claimed invention. Therefore, applicant’s argument is non-persuasive.

Regarding claim 12 of the response filed, applicant argues that Bajko does not teach “ the name of the S-CSCF that has served the UE is provided if the HSS still stores the name of the S-CSCF that was used by the UE last time”. However, Bajko, para 36, discloses “the HSS also maintains information regarding identities that are registered to the S-CSCFs”; therefore, HSS still stores information (i.e., name of the S-CSCF) that was used by the UE last time. Bajko, para 37, discloses “an existing registration (i.e., already registered) the HSS shall return the S-CSCF name (i.e., provide the S-CSCF stored name) in the response given for the user registration status query”. Applicant also argue that Bajko does not teach “the name of the S-CSCF serving the UE can be provided when the registration is still valid and the HSS also determines that there is no need for the I-CSCF to re-select an S-CSCF to the serve the UE”. However, as stated above, Bajko does teach the claim invention. Bajko, para 32, discloses “call state control function entities 23 and 24 (see, figure 2) could also provide similar functionality (as call state control function entity 22), should an identity of the user be registered with either of them”. As shown in figure 2, Bajko clearly depicts the direct communication between S-CSCF 23 and HSS 26; thus, there is no need for the I-CSCF to reselect and S-CSCF to serve the UE. Applicant argues that Bajko does not teach “the condition for providing the information needed for determining an S-

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CSCF comprises the name of the S-CSCF that has served or is serving the UE and the S-CSCF capability information”. However, Bajko, para 17, discloses “ in the 3G the S-CSCF selection is typically done in the I-CSCF during registration. The I-CSCF, however, cannot know if the user is registered in any other S-CSCFs. Thus it is possible that the independent registrations of the same subscription are forwarded to different ~~S-CSCF~~ based on the server capability information received by the ~~I-CSCF~~ from the home subscriber server (~~HSS~~)”, which mean that the HSS has the S-CSCF capability and S-CSCF name information regardless if the user registered with the S-CSCF or not. Therefore, applicant’s argument is non-persuasive. As for claims 2-3, 5, 7, 10, 14, and 16 depend from independent claims 1 and 12 and therefore the applicant’s argument is non-persuasive. Since claims 4, 6, 8, 9, 13, 15, and 17 depend from independent claims 1 and 12, therefore, applicant’s argument is non-persuasive.

## **2. Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that forms the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the

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treaty defined in section 35 l(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 5, 7, 10, 12, 14, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Bajko (US 20040196796 A1).

Regarding claim 1, Bajko discloses a method for reducing load of Home Subscriber Server (HSS)'s interface, comprising: upon receiving a request message from Serving Call Session Control Function (S-CSCF) comprising a request for a storing name of the S-CSCF and for downloading a user's subscription information, a HSS first storing the name of S-CSCF in the request message, then returning to the S-CSCF a response message comprising the user's subscription information (**HSS stores user information, paragraph 0033; HSS returns the S-CSCF name in response, paragraph 0037**).

Regarding claim 2, Bajko discloses the method according to claim 1, further comprising: upon receiving a request message from Interrogating Call Session Control Function (I-CSCF) for inquiring about the information of S-CSCF, the HSS returning to the I-CSCF an inquiry response message comprising the information needed for determining an S-CSCF (**paragraph 0038**); according to the returned information in the response message, the I-CSCF determining the S-CSCF that has the capability to serve a User Equipment (UE) and forwarding the request message of the UE to the determined S-CSCF (**I-CSCF allocates the public identities of the subscription (i.e., registration info of UE), paragraph 0042**).

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Regarding claim 3, Bajko discloses the method according to claim 2, wherein, when a Public User Identity performs registration for the first time, if there is at least one Public User Identity of the UE requesting registration that has been registered in the HSS and the registration is still valid, and if the HSS decides there is no need for the I-CSCF to re-select an S-CSCF to serve the UE, said information needed for determining the S-CSCF comprises the name of the S-CSCF that is serving the UE **(HSS returns the S-CSCF name, paragraph 0037)** ; if there is at least one Public User Identity of the UE of which the registration status is unregistered or the registration has expired thereof but the HSS still stores the name of the S-CSCF that was used by the UE last time, or if the UE has been assigned an S-CSCF by the HSS as an unregistered party that is called, said information needed for determining the S-CSCF comprises the name of the S-CSCF that has served the UE **(currently registered or not registered with S-CSCF, paragraph 0033)**; if HSS has stored the name of the S-CSCF that has served the UE and the HSS is not sure whether it is needed for the I-CSCF to re-select an S-CSCF to serve the UE, said information needed for determining an S-CSCF comprises the name of the S-CSCF that has served the UE and the S-CSCF capability information set that has the capability to meet the most strict service subscription requirement of the UE requesting registration **(HSS maintains name and /or address of the S-CSCF, paragraph 0036)**; if the HSS does not store the name of the assigned S-CSCF that has served the UE, then said information needed for determining an S-CSCF comprises the S-CSCF capability information set that has the capability to meet the most strict service subscription requirement of the UE requesting registration **(HSS can provide information regarding common features of S-CSCF, paragraph 0040)**.

Regarding claim 5, Bajko discloses the method according to claim 2, after the HSS receives the request message for inquiring the information of S-CSCF from the I-CSCF, further comprising: deciding according to the user's subscription information and the policy of the operator that the UE is permitted to perform a registration request in the current network before subsequent steps are executed (**I-CSCF initiates user registration status query, paragraph 0038**).

Regarding to claim 7, Bajko discloses according to claim 2, wherein, when the UE is in a session, if the HSS has stored the name of the S-CSCF that has served or is serving the UE, the HSS will, according to system configuration, return to the I-CSCF a response message comprising the name of the S-CSCF, and the I-CSCF will forward the session request message of the UE to the S-CSCF (**HSS store information of S-CSCF, paragraph 0033 and 0038**); or the HSS will return to the I-CSCF a response message comprising the information of the name of the S-CSCF and the S-CSCF capability information set that has the capability to meet the most strict service subscription requirement of the UE, and the I-CSCF will determine an S-CSCF that has the capability to serve the user and forwards the session request message of the UE to the determined S-CSCF(**HSS returns the S-CSCF name, paragraph 0037**); if there is no S-CSCF stored in the HSS that has served the UE, the HSS will directly return to the I-CSCF a response message comprising the S-CSCF capability information set that has the capability to meet the most strict service subscription requirements of the UE before the I-CSCF determines an S-CSCF that has the capability to serve the UE and forwards the session request message of the user to the determined S-CSCF (**HSS would return the service capabilities to the I-CSCF, paragraph 0042**).



Regarding claim 10, Bajko discloses the method according to claim 1, wherein said user's subscription information in the response message returned to the S-CSCF comprises at least the user profile information (**HSS stores user information, paragraph 0033; HSS returns the S-CSCF name in response, paragraph 0037**).

Regarding claim 12, a method for reducing load of Home Subscription Server (HSS)'s interface, comprising: upon receiving a message from a I-CSCF for inquiring about the information of S-CSCF, a HSS returning to the I-CSCF an inquiry response message comprising a information needed for determining an S-CSCF (**S-CSCF selection is typically done in the I-CSCF during registration; the independent registrations of the same subscription are forwarded to different S-CSCF based on the server capability information received by the I-CSCF from the home subscriber server (HSS); therefore, there is communication between the I-CSCF and HSS as well as exchange of information regarding the S-CSCF; Bajko, para 0017**); the I-CSCF determining a S-CSCF that has the capability to serve a UE and forwarding request message of the UE to the determined S-CSCF, wherein, when a Public User Identity performs registration for the first time (**the I-CSCF is configured to decide whether newly registered identities are being addressed to a different S-CSCF than the one where earlier registration took place; therefore, newly registered mean register for the first time and I-CSCF decides to forward the UE to the determined S-CSCF; Bajko, para 0017-0018**), if there is at least one Public User Identity of the UE requesting registration that has been registered in the HSS and the registration is still valid, and the HSS determines there is no need for the I-CSCF to re-select an S-CSCF to serve the UE, then said information needed for determining an S-CSCF comprises the name of the S-CSCF that is serving the UE ( **"the HSS**

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**also maintains information regarding identities that are registered to the S-CSCFs”; therefore, HSS still stores information (i.e., name of the S-CSCF) that was used by the UE last time; Bajko, para 36; “an existing registration (i.e., already registered) the HSS shall return the S-CSCF name (i.e., provide the S-CSCF stored name) in the response given for the user registration status query”; Bajko, para 37);**

if there is at least one Public User Identity of the UE requesting registration of which the registration status is unregistered or the registration has expired, but the HSS still stores the name of the S-CSCF that was used by the UE last time, or if the UE has been assigned an S-CSCF by the HSS as an unregistered party that is called, then said information needed for determining an S-CSCF comprises the name of the S-CSCF that has served the UE ( **“ in the 3G the S-CSCF selection is typically done in the I-CSCF during registration. The I-CSCF, however, cannot know if the user is registered in any other S-CSCFs. Thus it is possible that the independent registrations of the same subscription are forwarded to different S-CSCFs based on the server capability information received by the I-CSCF from the home subscriber server (HSS)”**, which mean that the HSS has the S-CSCF capability and S-CSCF name information regardless if the user registered with the S-CSCF or not; Bajko, para 17);

if HSS has stored the name of the S-CSCF that has served or is serving the UE and the HSS is not sure whether it is needed for the I-CSCF to re-select an S-CSCF to serve the UE, then said information needed for determining an S-CSCF comprises the name of the S-CSCF that has served or is serving the UE and the S-CSCF capability information set that has the capability to meet the most strict service subscription requirement of the UE requesting registration ( **“ in the**

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**3G the S-CSCF selection is typically done in the I-CSCF during registration. The I-CSCF, however, cannot know if the user is registered in any other S-CSCFs. Thus it is possible that the independent registrations of the same subscription are forwarded to different S-CSCFs based on the server capability information received by the I-CSCF from the home subscriber server (HSS)”, which mean that the HSS has the S-CSCF capability and S-CSCF name information regardless if the user registered with the S-CSCF or not; Bajko, para 17);**

if there is no assigned S-CSCF that has served the UE stored in the HSS, then said information needed for determining an S-CSCF comprises the S-CSCF capability information set that has the capability to meet the most strict service subscription requirement of the UE requesting registration ( “ **in the 3G the S-CSCF selection is typically done in the I-CSCF during registration. The I-CSCF, however, cannot know if the user is registered in any other S-CSCFs. Thus it is possible that the independent registrations of the same subscription are forwarded to different S-CSCFs based on the server capability information received by the I-CSCF from the home subscriber server (HSS)”, which mean that the HSS has the S-CSCF capability and S-CSCF name information regardless if the user registered with the S-CSCF or not; Bajko, para 17) .**

Regarding claim 14, Bajko discloses the method according to claim 12, after the HSS receives the message for inquiring about the information of S-CSCF from the I-CSCF, further comprising: deciding according to the user's subscription information and the policy of the operator that the UE is permitted to perform a registration request in the current network before

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subsequent steps is executed (**I-CSCF initiates user registration status query, paragraph 0038**).

Regarding claim 16, Bajko discloses the method according to claim 12, wherein, when the UE is in a session, if the HSS has stored the name of the S-CSCF that has served or is serving the UE, the HSS will, according to system configuration, return to the I-CSCF a response message comprising the name of S-CSCF, and the I-CSCF will forward the session request message of the UE to the S-CSCF (**paragraph 0038**); or the HSS will return to the I-CSCF a response message comprising the S-CSCF name and S-CSCF capability information set that has the capability to meet the most strict service subscription requirement of the UE, and the I-CSCF will determine an S-CSCF that has the capability to serve the user and forwards the session request message of the UE to the determined S-CSCF (**HSS can provide information regarding common features of S-CSCF, paragraph 0040**); if there is no S-CSCF stored in the HSS that has served the UE, the HSS will directly return to I-CSCF a response message comprising the S-CSCF capability information set that has the capability to meet the most strict service subscription requirement of the UE before I-CSCF determines an S-CSCF that has the capability to serve the UE and forwards the session request message of the UE to the determined S-CSCF (**HSS can provide information regarding common features of S-CSCF, paragraph 0040**).

#### **4. Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 4, 6, 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bajko (US 20040196796 A1) in view of Phan\_Anh (US 20040185848 A1).

Regarding claim 4, Bajko discloses the method according to claim 3, wherein, if the information returned from the HSS comprises only the name of S-CSCF, said determining the S-CSCF that has the capability to serve the UE for I-CSCF further comprises: the I-CSCF using the S-CSCF in the returned information as the S-CSCF that has the capability to serve the user **(paragraph 0047)**; if the information returned from the HSS comprises only the S-CSCF capability information set that has the capability to meet the most strict service subscription requirement of the UE requesting registration, said determining the S-CSCF that has the capability to serve the UE for I-CSCF **(I-CSCF request for registration from the S-CSCF based on the returned information by HSS, paragraph 0049; to ensure that all registrations utilizing the same services, paragraph 0050)**; if the information returned from the HSS comprises the name of S-CSCF and S-CSCF capability information set that has the capability to meet the most strict service subscription requirement of the UE requesting registration, said

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determining the S-CSCF that has the capability to serve the UE for I-CSCF further comprises: the I-CSCF verifying according to the returned name of S-CSCF whether the S-CSCF has the capability to meet the current service requirement of the UE, if yes, determining the returned S-CSCF is the S-CSCF that has the capability to serve the UE (**HSS returns the S-CSCF name, paragraph 0037**);

Bajko does not specifically teach that the I-CSCF selects a new S-CSCF that has the capability to meet the current service requirement of the UE according to the S-CSCF capability information set in the returned response message, and determining the newly-selected S-CSCF as the S-CSCF that has the capability to serve the UE, selecting a new S-CSCF that has the capability to meet the current service demand of the UE according to the S-CSCF capability information set in the response message, and determining the newly-selected S-CSCF is the S-CSCF that has the capability to serve the UE.

However, the preceding limitation is known in the art of communication. The second reference, Phan\_Anh teaches that the I-CSCF may recognizes that the first control entity is not the right entity where the new public ID of the user shall be registered at or the control entity may not be available; thus, the I-CSCF may select the second control entity (determines and chooses a new control entity (S-CSCF), paragraph 0039 and 0052). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the technique taught by Phan-Anh within the system of Bajko to allow the interrogating control entity (I-CSCF) to select the control entity (S-CSCF) that contains the needed information or profile to enable a subscriber to re-register to the network. In a 3G network for instance, a mobile user register in a S-CSCF during registration and authentication phase; if the registration fails,

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the I-CSCF selects a new S-CSCF which contain the phone profile that has been change in the HSS, which the current S-CSCF may not have the capability.

Regarding claim 6, Bajko discloses the method according to claim 2, wherein, when a Public User Identity performs registration for the first time, the message received by the HSS from the I-CSCF for inquiring the information of S-CSCF (**paragraph 0033**).

Bajko does not teach the information of S-CSCF is carried by a Cx-Query message; and said inquiry response message returned to the I-CSCF from the HSS further comprises the information needed for determining an S-CSCF is carried by a Cx-Query Resp message, or, the message received by the HSS from the I-CSCF for inquiring the information of S-CSCF is carried by a Cx-Select-pull message; said inquiry response message returned to the I-CSCF from the HSS further comprises the information needed for determining an S-CSCF is carried by a Cx-Select-pull Resp message.

However, the preceding limitation is known in the art of communication. The second reference, Phan\_Anh teaches that a Cx is an interface between the HSS and the newly selected S-CSCF and the information is transferred on a Cx from one S-CSCF to another S-CSCF (**paragraph 0036 and 0038**). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the technique taught by Phan-Anh within the system of Bajko to have a process where data is transfer from the HSS and S-CSCF via an Cx interface. It is common in a wireless network for S-CSCF to send the Cx-pull information (subscriber identity) to the HSS in order to be download relevant information from the subscriber profile to the S-CSCF.

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Regarding claim 8, Bajko teaches the method according to claim 2, wherein, when the UE is in a session, the message received by the HSS from the I-CSCF for inquiring about the information of S-CSCF (**paragraph 0033**).

Bajko does not teach the information of S-CSCF is carried by a Cx-Location-Query message; and said inquiry response message returned to I-CSCF from HSS further comprises the information needed for determining an S-CSCF is carried by a Cx-Location-Query Resp message, or, the message received by the HSS from the I-CSCF for inquiring about the information of S-CSCF is carried by a Cx-Select-Pull message; and said inquiry response message returned to the I-CSCF from the HSS further comprises the information needed for determining an S-CSCF is carried by a Cx-Select-Pull Resp message.

However, the preceding limitation is known in the art of communication. The second reference, Phan\_Anh teaches that a Cx is an interface between the HSS and the newly selected S-CSCF and the information is transferred on a Cx from one S-CSCF to another S-CSCF (**paragraph 0036 and 0038**). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the technique taught by Phan-Anh within the system of Bajko to have a process where data is transfer from the HSS and S-CSCF via an Cx interface. It is common in a wireless network for S-CSCF to send the Cx-pull information (subscriber identity) to the HSS in order to be download relevant information from the subscriber profile to the S-CSCF.

Regarding claim 13, Bajko discloses the method according to claim 12, wherein, if the information returned from the HSS comprises only the name of S-CSCF, said determining the S-CSCF that has the capability to serve the UE for I-CSCF further comprises: the I-CSCF



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determining the S-CSCF in the returned information is the S-CSCF that has the capability to serve the UE (**I-CSCF initiates user registration status query, paragraph 0038**); if the information returned from the HSS comprises the name of S-CSCF and S-CSCF capability information set that has the capability to meet the most strict service subscription requirement of the UE requesting registration, then said determining the S-CSCF that has the capability to serve the UE for I-CSCF further comprises: the I-CSCF deciding according to the returned name of S-CSCF whether the S-CSCF has the capability to meet the current service requirement of the UE, if yes, determining the S-CSCF in the returned information is the S-CSCF that has the capability to serve the UE, otherwise, selecting a new S-CSCF that has the capability to meet the current service requirement of the UE according to the S-CSCF capability information set in the response message, and determining the newly-selected S-CSCF as the S-CSCF that has the capability to serve the user (**I-CSCF allocates the public identities of the subscription (i.e., registration info of UE), paragraph 0042**).

Bajko fails to teach that the information returned from the HSS comprises only the S-CSCF capability information set that has the capability to meet the most strict service subscription requirement of the UE requesting registration, then said determining the S-CSCF that has the capability to serve the UE for I-CSCF further comprises: the I-CSCF selecting a new S-CSCF that has the capability to meet the current service requirement of the UE according to the S-CSCF capability information set in the returned response message, and determining the newly-selected S-CSCF as the S-CSCF that has the capability to serve the UE.

However, the preceding limitation is known in the art of communication. The second reference, Phan\_Anh teaches that the I-CSCF determines and chooses a new control entity (S-

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CSCF), (**paragraph 0039 and 0052**). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the technique taught by Phan-Anh within the system of Bajko to allow the interrogating control entity (I-CSCF) to select the control entity (S-CSCF) that contains the needed information or profile to enable a subscriber to re-register to the network. In a 3G network for instance, a mobile user register in a S-CSCF during registration and authentication phase; if the registration fails, the I-CSCF selects a new S-CSCF which contain the phone profile that has been change in the HSS, which the current S-CSCF may not have the capability.

6. Claim 9, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bajko (US 20040196796 A1) in view of Flykt (US 7366303 B2).

Regarding claim 9, Bajko discloses the method according to claim 1, wherein, the request message comprising the request for storing the name of the S-CSCF (**HSS maintain the name of S-CSCF, paragraph 0036**).

Bajko does not teach downloading the user's subscription information is carried by a Cx-Put message said response message returned to S-CSCF by HSS is carried by a Cx-Put Resp message, or, the request message comprising the request for storing the name of the S-CSCF and for downloading the user's subscription information is carried by a Cx-Pull message, and said response message returned to the S-CSCF by the HSS is carried by a Cx-Pull Resp message.

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However, the preceding limitation is known in the art of communication. The second reference, Flykt teaches that Cx-Put informs the S-CSCF name to the HSS and Cx-Pull download subscriber profile to S-CSCF (**column 9 lines 25-28**). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the technique taught by Flykt within the system of Bajko to have a process where Cx-Put is used for providing HSS information about S-CSCF and Cx-Pull is used for downloading messages. It is common in a wireless network for S-CSCF to send the Cx-pull information (subscriber identity) to the HSS in order to be download relevant information from the subscriber profile via Cx-Pull to the S-CSCF.

Regarding claim 15, Bajko discloses the method according to claim 12, wherein, when a public user identifier performs registration for the first time, the message received by the HSS from the I-CSCF for inquiring about the information of S-CSCF (**queried by the control entities, paragraph 0035**).

Bajko fails to teach that the information of S-CSCF is carried by a Cx-Query message; and said inquiry response message returned to the I-CSCF from the HSS comprises the information needed for determining an S-CSCF is carried by a Cx-Query Resp message, or, the message received by the HSS from the I-CSCF for inquiring about the information of S-CSCF is carried by a Cx-Select-Pull message, and said inquiry response message returned to the I-CSCF from the HSS comprises the information needed for determining an S-CSCF is carried by a Cx-Select-Pull Resp message.

However, the preceding limitation is known in the art of communication. The second reference, Flykt teaches that Cx-Put informs the S-CSCF name to the HSS and Cx-Pull

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download subscriber profile to S-CSCF (**column 9 lines 25-28**). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the technique taught by Flykt within the system of Bajko to have a process where Cx-Put is used for providing HSS information about S-CSCF and Cx-Pull is used for downloading messages. It is common in a wireless network for S-CSCF to send the Cx-pull information (subscriber identity) to the HSS in order to be download relevant information from the subscriber profile via Cx-Pull to the S-CSCF.

Regarding claim 17, Bajko discloses the method according to claim 12, wherein, when the UE is in a session, the message received by the HSS from the I-CSCF for inquiring about the information of S-CSCF (**paragraph 0047**).

Bajko fails to teach that the information of S-CSCF is carried by a Cx-Location-Query message, and said inquiry response message returned to the I-CSCF from the HSS comprises the information needed for determining an S-CSCF is carried by a Cx-Location-Query Resp message, or, the message received by the HSS from the I-CSCF for inquiring about the information of S-CSCF is carried by a Cx-Select-Pull message, and said inquiry response message returned to the I-CSCF from the HSS comprises the information needed for determining an S-CSCF is carried by a Cx-Select-Pull Resp message.

However, the preceding limitation is known in the art of communication. The second reference, Flykt teaches that Cx-Put informs the S-CSCF name to the HSS and Cx-Pull download subscriber profile to S-CSCF (**column 9 lines 25-28**). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the technique taught by Flykt within the system of Bajko to have a process where Cx-Put is used for providing

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HSS information about S-CSCF and Cx-Pull is used for downloading messages. It is common in a wireless network for S-CSCF to send the Cx-pull information (subscriber identity) to the HSS in order to be download relevant information from the subscriber profile via Cx-Pull to the S-CSCF.

### **Conclusion**

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chhean Thao whose telephone number is 571-270-7497. The examiner can normally be reached on Monday-Friday 8:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on 571-272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/CHHEAN THAO/

Examiner, Art Unit 2617

/NICK CORSARO/

Supervisory Patent Examiner, Art Unit 2617

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